# Industrial Radiography



#### Introductions

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Environmental Scientist II



#### 28-35-278. Radiation survey instruments.

- (b) Each radiation survey instrument shall be calibrated as follows:
  - (1) At energies appropriate for use;
  - (2) at intervals not to exceed six months and after each instrument servicing;

#### 28-35-284. Personnel monitoring control.

The licensee or registrant shall not permit any individual to act as a radiographer or a radiographer's assistant unless, at all times during radiographic operations, each individual wears on the trunk of the body a personnel-monitoring device (PMD) as specified in K.A.R. 28-35-217a, a direct reading dosimeter, and an alarming ratemeter.

#### 28-35-282. General requirements.

Each radiographer's assistant shall be under the personal supervision of a radiographer when using any radiographic exposure device, any associated equipment, or a sealed source, or while conducting radiation surveys to determine that the sealed source has returned to the shielded position or that the radiation machine is shut off after each exposure.

The personal supervision shall include the following:

- (1) The radiographer's physical presence at the site where the sources of radiation are being used;
- (2) the availability of the radiographer to provide immediate assistance, if required; and
- (3) the radiographer's direct observation of the assistant's performance of the operations.



# Increased Controls for Licensees that Possess Sources Containing Radioactive Material Quantities of Concern.



In order to ensure the safe handling, use, and control of licensed material in use and in storage each licensee shall control access at all times to radioactive material quantities of concern and devices containing such radioactive material (devices), and limit access to such radioactive material and devices to only approved individuals who require access to perform their duties.



In order to ensure the safe handling, use, and control of licensed material in use and in storage, each licensee shall have a documented program to monitor and immediately detect, assess, and respond to unauthorized access to radioactive material quantities of concern and devices. Enhanced monitoring shall be provided during periods of source delivery or shipment, where the delivery or shipment exceeds 100 times the Table 1 values.

In order to ensure the safe handling, use, and control of licensed material in transportation for domestic highway and rail shipments by a carrier other than the licensee, for quantities that equal or exceed those in Table 1 but are less than 100 times Table 1 quantities, per consignment, the licensee shall:



#### Use carriers which:

- A. Use package tracking systems,
- B. Implement methods to assure trustworthiness and reliability of drivers,
- C. Maintain constant control and/or surveillance during transit, and
- D. Have the capability for immediate communication to summon appropriate response or assistance.

Contact and coordinate the expected arrival time of the shipment and confirm receipt of the shipment; and initiate an investigation to determine the location of the licensed material if the shipment does not arrive on or about the expected arrival time.



In order to ensure the safe handling, use, and control of licensed material in use and in storage each licensee that possesses mobile or portable devices containing radioactive material in quantities greater than or equal to Table 1 values, shall:



For portable devices

have two independent physical controls that form tangible barriers to secure the material from unauthorized removal when the device is not under direct control and constant surveillance by the licensee.



#### For mobile devices

that are only moved outside of the facility (e.g., on a trailer), have two independent physical controls that form tangible barriers to secure the material from unauthorized removal when the device is not under direct control and constant surveillance by the licensee.



For devices in or on a vehicle or trailer

licensees shall also utilize a method to disable the vehicle or trailer when not under direct control and constant surveillance by the licensee



The licensee shall retain documentation required by these increased controls for three years after they are no longer effective.



Detailed information generated by the licensee that describes the physical protection of radioactive material quantities of concern, is sensitive information and shall be protected from unauthorized disclosure.



# **Emergency Contact Numbers**

NORMAL WORK DAYS:

(8:00 a.m. to 5:00 p.m.) (785) 296-1560

OFF-DUTY HOURS: (785) 296-8013



#### Recent Violations

On May 1, 2006, Notice of Violation and Proposed Imposition of Civil Penalty in the amount of \$6,500

- Willful failure to block and brace a radiographic exposure device during transport to and from a temporary jobsite.
- Failure to control and maintain constant surveillance of licensed material in an unrestricted area
- Failure to have a second qualified individual observe radiographic operations

#### Recent Violations

On May 25, 2006, a Notice of Violation was issued

 Failure to wear a direct reading dosimeter and personnel dosimeter, on the trunk of his body during radiographic operations.



#### Recent Violations

On September 18, 2006, a Notice of Violation and Proposed Imposition of Civil Penalty in the amount of \$9,600

 Failure to properly control and transmit safeguards information (SGI).



## QUESTIONS ???



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